

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. - 4. (Canceled).

5. – 17. (Canceled).

18. (Previously Presented) A receiver for use in a time division duplex communication system using code division multiple access, the system communicating using multiple communication bursts in a time slot, the receiver comprising:

an antenna for receiving radio frequency signals including the multiple communication bursts;

a demodulator for demodulating radio frequency signals to produce a baseband signal;

a channel estimation device for estimating a channel response for the bursts;

a successive interference cancellation joint detection (SIC-JD) device comprising:

a first joint detection block for detecting data within the baseband signal for a first group of bursts of the multiple bursts;

a first interference construction block for constructing an estimate of interference of the first group bursts;

a subtractor for subtracting the first group interference from the baseband signal;

a second joint detection block for detecting data within the subtracted signal for a second group of bursts of the multiple bursts;

a first matched filter for processing the baseband signal to match symbol responses of the data signals in the first group; and

a second matched filter for processing the subtracted signal to match symbol responses of the data signals in the second group; and

wherein an output of the first and second joint detection blocks are soft symbols, the SIC-JD device further comprising a first and second soft to hard decision block for converting the first and second joint detection block outputs into hard symbols.

19. (Original) The receiver of claim 18 wherein the SIC-JD device further comprises:

a plurality of additional joint detection blocks for detecting data for additional groups of bursts of the multiple bursts.

20. - 21. (Canceled).

22. (Previously Presented) A device for use in a receiver of a time division duplex communication system using code division multiple access, the system communicating using multiple communication bursts in a time slot, the device comprising:

an input configured to receive a baseband signal associated with received bursts within a time slot;

a first joint detection block for detecting data within the baseband signal for a first group of bursts of the received bursts;

a first interference construction block for constructing an estimate of interference of the first group bursts;

a subtractor for subtracting the first group interference from the baseband signal;

a second joint detection block for detecting data within the subtracted signal for a second group of bursts of the received bursts;

a first matched filter for processing the baseband signal to match symbol responses of the received bursts of the first group; and

a second matched filter for processing the subtracted signal to match symbol responses of the received bursts of the second group; and

wherein an output of the first and second joint detection blocks are soft symbols, the device further comprising a first and second soft to hard decision block converting the first and second joint detection block outputs into hard symbols.

23. (Original) The device of claim 22 further comprising additional joint detection blocks for detecting data for additional groups of bursts of the multiple bursts.

24. - 25. (Canceled).